Claim Objections

1.   Claim 1 is objected to because of the following informalities: This claims recites

"said data store comprising one or more data field values". It is unclear as to which data

store (i.e. first, second, or third) this recitation relates to. Based on the context, it is

assumed for examination below that it is meant to relate to the second data store.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. These claims recite, either themselves, or by

incorporating the subject matter of pervious claims, a number of statements of intended

use (i.e. for clauses). Language that suggests or makes optional but does not require

steps to be performed or does not limit a claim to a particular structure does not limit the

scope of a claim or claim limitation raises the question as to the limiting effect of the

language. Statements of intended use are specifically listed as language of this type

(see MPEP § 2106 for further discussion). To the extent supported by Applicant's

disclosure, Examiner respectfully suggests making positive structural claims and avoid

the language specifically identified in § 2106. Examiner also respectfully observes that

mere data or types of data are non-function descriptive data and cannot be given

patentable weight so as to distinguish Applicant's invention from the prior art. However,

§ 2106.01 discusses that properly embodied data structures are entitled to weight.

Examiner respectfully suggests claims of this type, to the extent supported by

Applicant's disclosure. Note that it is the specific relationships between the data,

positively recited, that allow a data structure to receive patentable weight.

Alternatively, Examiner respectfully observes that the data recited would become

functional if used by the invention as the basis of some decision or similar processing

performed by the system.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-5, and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipates

by US Patent 5,201,046 to Goldberg (Goldberg).

With respect to claim 1

Goldberg teaches:

A system for defining and managing an asset, comprising:

a first data store for storing specification data (see col 9, lines 46-57

and fig 2, note that the database contains a set of tables that would be

capable of storing specification data since specifications are merely data

elements storable in the table structure taught by Goldberg. Note further that specification data is non-functional descriptive material as it does not cause any change in structure or function of the claimed invention and is merely data and is not given patentable weight for distinguishing Applicant's invention from the prior art, see MPEP § 2106.01 for further discussion);

a second data store for storing "item" data, said data store comprising one or more data field values (see col 9, lines 46-57 and fig 2, note that the database contains a set of tables that would be capable of storing "item" data since items are merely data elements storable in the table structure taught by Goldberg. Note further that "item" data is non-functional descriptive material as it does not cause any change in structure or function of the claimed invention and is merely data and is not given patentable weight for distinguishing Applicant's invention from the prior art, see MPEP § 2106.01 for further discussion);

a third data store for virtual area data (see col 9, lines 46-57 and fig 2, note that the database contains a set of tables that would be capable of storing virtual area data since virtual areas are merely data elements storable in the table structure taught by Goldberg. Note further that the virtual are data is non-functional descriptive material as it does not cause any change in structure or function of the claimed invention and is merely data, see MPEP § 2106.01 for further discussion), said virtual area data

representing a portion of a three dimensional space for an asset as a two

dimensional structure (see col 10, line 58-col 11, note that the three

dimension space of an automobile is represented as in a two dimensional

table. Note further that the virtual area data is non-functional descriptive

material and is not given patentable weight for distinguishing Applicant's

invention from the prior art);

one or more data input systems for inputting data into said first data

store (see col 8, lines 45-57 and col 9, lines 1-13 and fig 3, note that the

DBMS is coupled to a number of application processors which would be

capable of inputting data into said first data store in so far as they are

coupled to the DBMS, which contains the tables);

one or more data input systems for inputting "item" data into said

second data store (see col 8, lines 45-57 and col 9, lines 1-13 and fig 3,

note that the DBMS is coupled to a number of application processors

which would be capable of inputting data into said second data store in so

far as they are coupled to the DBMS, which contains the tables);

one or more data input systems for inputting virtual area data into

said third data store (see col 8, lines 45-57 and col 9, lines 1-13 and fig 3,

note that the DBMS is coupled to a number of application processors

which would be capable of inputting virtual area data into said third data

store in so far as they are coupled to the DBMS, which contains the

tables); and

a data store interface linking said first data store, said second data

store, and said third data store (see col 12, lines 45-57, note that the

tables are linked by references).

With respect to claim 2

Goldberg teaches:

The system of claim 1 (see rejection of claim 1 above) wherein the third data

store further comprises data arranged in an object-relational data structure

representing three-dimensional physical space (see see col 10, line 58-col 11,

note that the three dimension space of an automobile is represented as in a two

dimensional table and is object-relational in so far as the fields contain relations

which identify the data element's relationship to the three dimensional

automobile.)

With respect to claim 3

Goldberg teaches:

The system of claim 2 (see rejection of claim 2 above) wherein the virtual area

data is linked to item specification data values provided in a plurality of data fields

describing the relationship between the item data and the virtual area data item

(col 11, lines 25-36 and fig 4-5 note that links between the various sub-

assemblies and parts are provided and relate the various parts by their structure

within the whole automobile).

With respect to claim 4

Goldberg teaches:

The system of claim 1 (see rejection of claim 1 above) wherein said first data

store further comprises:

one or more objects incorporated into or consumed during the

creation of the asset, said objects comprising (Note that objects are non-

functional descriptive material as they do not cause any change in

structure or function of the claimed invention and is merely data and is not

given patentable weight for distinguishing Applicant's invention from the

prior art, see MPEP § 2106.01 for further discussion, see also fig 4-5, note

the plurality of fields throughout the various tables):

at least one data field for storing item attributes;

at least one data field for storing component values; and

at least one data field for storing allocation values.

With respect to claim 5

Goldberg teaches:

The system of claim 2 (see rejection of claim 2 above) wherein said virtual area

data is defined in a graphical format able to be processed and displayed in a user

interface (see col 10, lines 58-65, note that the data is usable in conjunction with

CAD and similar programs, see also col 10, lines 24-33, and col 26, line 37-col

27, line 50 in combination with fig 1, describing the processing of the data into a

directed graph and a picturing a directed graph. As such, the data is defined in a

graphical format capable of being processed and displayed)

With respect to claim 21

Goldberg teaches:

> The system of claim 1 (see rejection of claim 1 above) wherein the first, second, and third data stores contains links to other data in the system such that a change to one item or component is propagated to all linked data (col 12, lines 45-57, note that the tables are linked by references, see also col 16, line 32-col 17, line 15, teaching the update function. Note the recursive functionality of the update command such that the searchCondition can be set to follow the linked data).

With respect to claim 22

Goldberg teaches:

> The system of claim 1 (see rejection of claim 1 above) wherein the virtual area defined in a graphical format able to be processed and displayed in a user interface by CAD software (see col 10, lines 58-65, note that the data is usable in conjunction with CAD and similar programs).

With respect to claim 23

Goldberg teaches:

> The system of claim 1 (see rejection of claim 1 above) wherein the first, second, and third data stores is are updated such that information modified by users is instantly available to other users in the system (see see also col 16, line 32-col 17, line 15, teaching the update function in combination with col 9, lines 1-13 and col 20, lines 24-29, note that the application processes directly draw data from the DBMS, therefore updates to the DBMS are instantly available).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

8.   Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Goldberg in view of US Patent Application Publication 2001/0011222 for McLauchlin

(McLauchlin)

<u>With respect to claim 7</u>

Goldberg teaches:

> The system of claim 1 (see rejection of claim 1 above) but does not explicitly
>
> teach further including at least one item procurement toolset, said item
>
> procurement toolset comprising:

>> one or more data input systems for inputting specification data into
>>
>> said first data store and said second data store.

McLauchlin teaches:

> further including at least one item procurement toolset (i.e. procurement system,
>
> see par 34 and fig 1), said item procurement toolset comprising:
>
>> one or more data input systems for inputting specification data into
>>
>> said first data store and said second data store (i.e. PCs or workstations,
>>
>> see par 34).

It would have been obvious to one having ordinary skill in the art to have provided

Goldberg with the procurement functionality of McLauchlin in order to have integrated

existing systems related to the procurement process for collaborative use by all parties

and personnel involved as taught explicitly by McLauchlin (see par 15).

<u>With respect to claim 8</u>

Goldberg in view of McLauchlin teaches:

> The system of claim 7 (see rejection of claim 7 above) wherein the item
>
> procurement toolset further including at least one bid tool (i.e. receiving of bid
>
> responses functionality, see McLauchlin par 59-65), said bid tool comprising:
>
>> one or more data input systems for inputting specification data into
>>
>> said first data store and said second data store (i.e. PCs or workstations,
>>
>> see McLauchlin par 34).

(See rationale supporting obviousness and motivation to combine of claim 7 above)

<u>With respect to claim 9</u>

Goldberg in view of McLauchlin teaches:

> The system of claim 7 (see rejection of claim 7 above) where the item
>
> procurement toolset further including at least one a request for quotation tool (i.e
>
> solicitation posting capability, see McLauchlin par 59-65), said request for
>
> quotation tool comprising:
>
>> one or more data input systems for inputting specification data into
>>
>> said first data store and said second data store (i.e. PCs or workstations,
>>
>> see McLauchlin par 34).

(See rationale supporting obviousness and motivation to combine of claim 7 above)

.

9.   Claims 10-15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Goldberg in view of US Patent 4,383,298 to Huff (Huff)

<u>With respect to claim 10</u>

Goldberg teaches:

> The system of claim 1 (see rejection of claim 1 above) but does not explicitly
>
> teach further including at least one cost management system, said cost
>
> management system comprising:
>
>> one or more data input systems for inputting specification data in
>>
>> said first data store and inputting item data in said second data store .

Huff teaches:

further including at least one cost management system (i.e. maintenance control

system, see col 5, lines 34-64 in combination with col 1, lines 12-26), said cost

management system comprising:

one or more data input systems for inputting specification data in

said first data store and inputting item data in said second data store (i.e.

"smart" terminals, see col 6, lines 24-45).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's

invention to have provided Goldberg with the cost management features of Huff in order

to have achieved control over maintenance expenses to minimize total costs as taught

explicitly by Huff (see col 2, lines 63-67)

With respect to claim 11

Goldberg in view of Huff teaches:

The system of claim 10 (see rejection of claim 10 above) further including at least

one an estimate tool (i.e. using historical data to estimate future costs, see Huff

col 6, lines 42-45), said estimate tool comprising:

one or more data input systems for inputting specification data in

said first data store and inputting item data in said second data store (i.e.

"smart" terminals, see Huff col 6, lines 24-45).

(See rationale supporting obviousness and motivation to combine of claim 10 above)

With respect to claim 12

Goldberg in view of Huff teaches:

The system of claim 10 (see rejection of claim 10 above) further including at least

one an invoice tool, said invoice tool (i.e. Accounts Payable updates to the

database, see Huff col 7, lines 10-20) comprising:

one or more data input systems for inputting specification data in

said first data store and inputting item data in said second data store (i.e.

"smart" terminals, see Huff col 6, lines 24-45).

(See rationale supporting obviousness and motivation to combine of claim 10 above)

With respect to claim 13

Goldberg in view of Huff teaches:

The system of claim 10 further including at least one budget tool, said budget tool

(i.e. expense budgeting system, see Huff col 32, lines 57-64) comprising:

one or more data input systems for inputting specification data in

said first data store and inputting item data in said second dam store (i.e.

"smart" terminals, see Huff col 6, lines 24-67).

(See rationale supporting obviousness and motivation to combine of claim 10 above)

With respect to claim 14

Goldberg in view of Huff teaches:

The system of claim 10 (see rejection of claim 10 above) further including at least

one a payment tool (see Huff col 7, lines 10-34, note that the system tracks

payments), said payment tool comprising:

one or more data input systems for inputting specification data in

said first data store and inputting item data in said second data store. (i.e.

"smart" terminals, see Huff col 6, lines 24-67).

(See rationale supporting obviousness and motivation to combine of claim 10 above)

With respect to claim 15

Goldberg in view of Huff teaches:

The system of claim 10 (see rejection of claim 10 above) further including at least

one a contract tool, said contract tool (i.e. MEL0014, note that it tracks vendor

contracts, see Huff col 13, lines 3-7) comprising:

one or more data input systems for inputting specification data in

said first data store and inputting item data in said second data store (i.e.

"smart" terminals, see Huff col 6, lines 24-67).

(See rationale supporting obviousness and motivation to combine of claim 10 above)

With respect to claim 24

Goldberg in view of Huff teaches:

The system in claim 1 (see rejection of claim 1 above) further including at least

one order fulfillment tool, said order fulfillment tool (i.e. MEL0014, see Huff col

13, lines 3-7 note that it tracks late or pending quantity information, suggesting

the tracking of the fulfillment of order by vendors) comprising:

one or more data input systems for inputting specification data in

said first data store and inputting item data in said second data store. (i.e.

"smart" terminals, see Huff col 6, lines 24-67).

(See rationale supporting obviousness and motivation to combine of claim 10 above)

10.   Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Goldberg in view of US Patent 6,295,513 to Thackston (Thackston)

With respect to claim 16

Goldberg teaches:

> The system of claim 1 (see rejection of claim 1 above) but does not explicitly
>
> teach further including at least one teamwork toolset, said teamwork toolset
>
> comprising:
>
>> one or more data input systems for inputting specification data in
>>
>> said first data store and inputting item data in said second data store

Thackston teaches:

> further including at least one teamwork toolset (i.e. virtual collaborative
>
> environment, see col 8, lines 45-60), said teamwork toolset comprising:
>
>> one or more data input systems for inputting specification data in
>>
>> said first data store and inputting item data in said second data store (i.e.
>>
>> user systems, see col 9, lines 18-24 and fig 2)

It would have been obvious to one having ordinary skill in the art at the time of

Applicant's invention to have provided Goldberg with the collaboration features of

Thackston in order to have allowed the design, developed and evaluated products in a

collaborative environment as taught explicitly by Thackston (see col 3, lines 53-59)

With respect to claim 17

Goldberg in view of Thackston teaches:

> The system of claim 16 (see rejection of claim 16 above) further including at least
>
> one a collaboration tool (i.e. tools implied by the stored multi-media
>
> communications, see Thackston col 17, lines 34-47), said collaboration tool
>
> comprising:
>
>> one or more data input systems for inputting specification data in
>>
>> said first data store and inputting item data in said second data store (i.e.
>>
>> user systems, see Thackston col 9, lines 18-24 and fig 2).

(See rationale supporting obviousness and motivation to combine of claim 16 above)

With respect to claim 18

Goldberg in view of Thackston teaches:

> The system of claim 16 (see rejection of claim 16 above) further including at least
>
> one a message center (i.e. multimedia session data module, see Thackston col
>
> 17, lines 34-47)), said message center comprising:
>
>> one or more data input systems for inputting specification data in
>>
>> said first data store and inputting item data in said second data store. (i.e.
>>
>> user systems, see Thackston col 9, lines 18-24 and fig 2).

(See rationale supporting obviousness and motivation to combine of claim 16 above)

With respect to claim 19

Goldberg in view of Thackston teaches:

> The system of claim 16 (see rejection of claim 16 above) further including at least
>
> one a request for information tool (i.e. GMR search functionality, see Thackston,

col 42, lines 26-67 in combination with col 43, line 40-col 44, line 13, note that the

designer requests information on fabricators from the GMR database), said

request for information tool comprising:

one or more data input systems for inputting specification data in

said first data store and inputting item data in said second data store (i.e.

user systems, see Thackston col 9, lines 18-24 and fig 2).

(See rationale supporting obviousness and motivation to combine of claim 16 above)

With respect to claim 20

Goldberg in view of Thackston teaches:

The system of claim 1 (see rejection of claim 1 above) wherein an allocation

value and/or an item attribute history is recorded per one or more phases within

the management of an asset (see Thackston, col 12, lines 53-65, note that

historical records of all user transactions are recorded throughout the 3 phases,

see Thackston, col 8, lines 45-60).

(See rationale supporting obviousness and motivation to combine of claim 16 above)

Allowable Subject Matter

11.   While the claims currently do not recite allowable subject matter, Examiner

respectfully observes that Applicant has identified a unique aspect of his invention as

one that manages a physical asset through design, construction, and management (i.e.

a whole lifecycle approach). The references of record appear to focus on only one or

two aspects of these three phases (i.e. management or design and construction).

Examiner respectfully suggests incorporating this entire lifecycle feature into the

independent claims so as to claim an integrated system that operates across all of

these multiple phases. This suggestion is not meant to convey allowable subject matter

and any new features added to the claims would require additional search in order to

determine whether they are allowable.

Inquiry

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to BRIAN FERTIG whose telephone number is (571)270-

5131. The examiner can normally be reached on Monday - Friday 8:30am to 5:00pm

EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James Trammell can be reached on (571) 272-6712. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

13.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B.F./

/Mary Cheung/
Primary Examiner, Art Unit 3694